

**PROGRAMMABLE MOS DEVICE FORMED BY HOT CARRIER EFFECT**

**ABSTRACT**

[0026] A programmable metal-oxide-semiconductor (MOS) memory circuit and the method for programming same and disclosed. The circuit comprises a first N-type transistor having a gate region tied with a drain region and connectable to a first control voltage level, and a source region connected to a second voltage level; and a second N-type transistor having a gate region tied with a drain region and connectable to the first control voltage level, and a source region connected to the second voltage level, wherein the first and second control voltage levels are imposed to program either the first or second N-type transistor by causing a voltage difference between the drain region and the source region ( $V_{ds}$ ) and voltage difference between the gate region and the source region ( $V_{gs}$ ) to be bigger than a predetermined threshold voltage to induce a hot carrier effect.

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